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PIZIALI, ANDREW T	
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BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Application Number: 09/719,141
Filing Date: February 12, 2001
Appellant(s): NOVIS ET AL.

Jerold Schneider
For Appellant

EXAMINER'S ANSWER

MAILED
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This is in response to the appeal brief filed 7/22/2004.

(1) Real Party in Interest

A statement identifying the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

A statement identifying the related appeals and interferences which will directly affect or be directly affected by or have a bearing on the decision in the pending appeal is contained in the brief.

(3) Status of Claims

The statement of the status of the claims contained in the brief is correct.

(4) Status of Amendments After Final

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

(5) Summary of Invention

The summary of invention contained in the brief is correct.

(6) Issues

The appellant's statement of the issues in the brief is correct.

(7) Grouping of Claims

Appellant's brief includes a statement of which claims do or do not stand or fall together and provides reasons as set forth in 37 CFR 1.192(c)(7) and (c)(8).

The appellant asserts that with respect to the rejections under 35 USC 102 and 35 USC 103 based in whole or in part on Guiselin, claims 25-48 stand or fall with claim 25 and claims 52-56, 60-65 and 69-71 stand or fall with claim 52.

The appellant asserts that with respect to the rejections under 35 USC 102 and 35 USC 103 based in whole or in part on Hartig, claims 25-28 and 30-71 stand or fall with

claim 25. It is noted that the examiner has withdrawn the 35 U.S.C. 103(a) rejection of claim 30 as being unpatentable over USPN 5,584,902 to Hartig in view of USPN 5,952,084 to Anderson or USPN 5,168,003 to Proscia. Therefore, claims 25-28 and 31-71 stand or fall with claim 25.

(8) Claims Appealed

The copy of the appealed claims contained in the Appendix to the brief is correct.

(9) Prior Art of Record

5,595,825	Guiselin	1-1997
5,584,902	Hartig et al.	12-1996
5,505,989	Jenkinson	4-1996
5,952,084	Anderson et al.	9-1999
5,168,003	Proscia	12-1992

(10) Grounds of Rejection

It is noted that the examiner has withdrawn the 35 U.S.C. 103(a) rejection of claim 30 as being unpatentable over USPN 5,584,902 to Hartig in view of USPN 5,952,084 to Anderson or USPN 5,168,003 to Proscia.

The following grounds of rejection are currently applicable to the appealed claims:

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 25-29, 31, 34-35, 43, 46, 52-56 and 61-65 are rejected under 35 U.S.C. 102(b) as being anticipated by USPN 5,595,825 to Guiselin.

Regarding claims 25-29, 31, 34-35, 43, 46, 52-56 and 61-65, Guiselin discloses a transparent substrate carrying a coating stack comprising at least one metallic coating layer comprising silver or a silver alloy, in contact with two non-absorbent transparent dielectric coating layers characterized in that prior to a heat treatment the dielectric coating layers comprise a layer based on a partially but not totally oxidized combination of nickel and chromium (column 2, lines 25-39, column 4, lines 30-54 and Figure 1). Guiselin discloses that NiCr layers may be placed both over and under each silver layer and further discloses that upon depositing the dielectric layers on the NiCr layers, in the presence of oxygen, the NiCr layers become partially oxidized (column 4, lines 30-54).

Regarding claim 29, Guiselin discloses that dielectric films may be tin or tantalum oxide (column 2, lines 49-59 and Figure 1).

3. Claims 25-28, 31-35, 43, 46, 49-57 and 61-66 are rejected under 35 U.S.C. 102(b) as being anticipated by USPN 5,584,902 to Hartig et al. (hereinafter referred to as Hartig).

Regarding claims 25-28, 31-35, 43, 46, 49-57 and 61-66, Hartig discloses a transparent substrate carrying a coating stack comprising one metallic coating layer comprising silver, in contact with two non-absorbent transparent dielectric coating layers, characterized in that prior to heat treatment, each of the dielectric coating layers comprise

a layer based on a partially, but not totally oxidized, combination of nickel and chromium (column 9, lines 10-22 and column 10, lines 33-38).

Regarding claim 43 and 61-66, Hartig discloses that the five layer system may be expanded to a seven layer system (column 7, lines 26-46).

Regarding claims 49-51, Hartig discloses that metallic coating layer is deposited in an oxidizing atmosphere with about 5% oxygen (column 10, lines 15-38).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. Claims 36-42, 44-45 and 47-48 are rejected under 35 U.S.C. 103(a) as being unpatentable over Guiselin (as applied to claims 25-29, 31, 34-35, 43, 46, 52-56 and 61-65 above).

Regarding claims 36-42, 44-45 and 47-48, Guiselin discloses that the thickness of the first dielectric film may be between 27 and 34nm, the thickness of the second and third dielectric films may be between 70 and 80nm and the thickness of the fourth dielectric film may be between 32 and 37nm (column 4, lines 17-29). Guiselin discloses that the thickness of the barrier films may range from 0.5 to 4nm (column 4, lines 40-54). Guiselin discloses that the thickness of the metallic coating layers may be between 8 to 15nm (paragraph bridging columns 3 and 4).

The coating thicknesses and compositions impart energy absorption and light transmittance properties within the coated article while affecting the spectral properties.

The thickness of each layer is a function of the desired component stack and the preferred reflectivity. The thicknesses and optical characteristics of the coating stack may be adjusted to achieve a broad range of specified emissivity and haze values. The desired attributes may be obtainable by adjusting the compositions and thicknesses of the coating layers. It would have been obvious to one having ordinary skill in the art at the time the invention was made to vary the thickness of the layers because it is understood by one of ordinary skill in the art that the layer thicknesses determine properties such as transmittance, emissivity, and color and because it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art.

Regarding claims 37-42 and 45, Guiselin does not mention all the claimed properties, but considering the substantially identical glass article of Hartig, compared to the applicant's claimed article, it appears that the glass article of Hartig possess all the claimed properties.

The Patent and Trademark Office can require applicants to prove that prior art products do not necessarily or inherently possess characteristics of claimed products where claimed and prior art products are identical or substantially identical, or are produced by identical or substantially identical processes; burden of proof is on applicants where rejection based on inherency under 35 U.S.C. § 102 or on prima facie obviousness under 35 U.S.C. § 103, jointly or alternatively, and Patent and Trademark Office's inability to manufacture products or to obtain and compare prior art products evidences fairness of this rejection, *In re Best, Bolton, and Shaw*, 195 USPQ 431 (CCPA 1977).

Regarding claims 47-48, Guiselin discloses that the coated glass article may be used in buildings and automobiles (column 1, lines 8-15). Guiselin does not specifically mention using the coated glass article as a laminated glazing or vehicle windshield, but does disclose that the article may be used for the production of panes specially adapted for thermal insulation and/or solar protection (column 1, lines 11-15). It would have been obvious to one having ordinary skill in the art at the time the invention was made to use the coated glass article disclosed by Guiselin as a laminated glazing or vehicle windshield, because both applications require thermal insulation and/or solar protection.

6. Claim 30 is rejected under 35 U.S.C. 103(a) as being unpatentable over Guiselin as applied to claims 25-29, 31, 34-35, 43, 46, 52-56 and 61-65 above, and further in view of USPN 5,505,989 to Jenkinson.

Guiselin discloses that the dielectric material may be an oxide such as tin oxide or tantalum oxide (column 2, lines 49-59), but does not mention using titanium oxide. Jenkinson discloses that tin oxide, tantalum oxide and titanium oxide are all high refractive index materials that may be used interchangeably (paragraph bridging columns 3 and 4). It would have been obvious to one having ordinary skill in the art at the time the invention was made to make the dielectric layers of Guiselin from any suitable high refractive index material, such as titanium oxide, as disclosed by Jenkinson, because it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of design choice.

7. Claims 30, 32-33, 60 and 69-71 are rejected under 35 U.S.C. 103(a) as being unpatentable over Guiselin as applied to claims 25-29, 31, 34-35, 43, 46, 52-56 and 61-65

above, and further in view of USPN 5,952,084 to Anderson et al. (hereinafter referred to as Anderson) or USPN 5,168,003 to Proscia.

Regarding claims 30 and 32-33, 60, 69-71, Guiselin discloses that the dielectric material may be an oxide such as tin oxide or tantalum oxide (column 2, lines 49-59), but does not mention using titanium oxide or silicon nitride. Anderson (column 10, lines 34-40) and Proscia (column 13, lines 31 through column 14, line 15) disclose that tin oxide, tantalum oxide, titanium oxide and silicon nitride are all high refractive index materials that may be used interchangeably (paragraph bridging columns 3 and 4). It would have been obvious to one having ordinary skill in the art at the time the invention was made to make the dielectric layers of Guiselin from any suitable high refractive index material, as disclosed by Anderson or Proscia, because it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of design choice.

Regarding claims 60 and 69, Guiselin discloses that there is no obligation to choose the same material for all the dielectric material films (paragraph bridging columns 2 and 3).

8. Claims 36-42, 44-45, 47-48, 58-59 and 67-68 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hartig (as applied to claims 25-28, 31-35, 43, 46, 49-57 and 61-66 above).

Regarding claims 36-42, 44-45, 47-48, 58-59 and 67-68, Hartig discloses that the thickness of the first dielectric film may be between 35 to 45nm and the thickness of the second dielectric film may be between 45 to 55nm. Hartig discloses that the thickness of

the barrier films may be greater than about 2nm. Hartig also discloses that the thickness of the metallic coating layer is about 5 to 12nm (column 9, lines 10-22).

The coating thicknesses and compositions impart energy absorption and light transmittance properties within the coated article while affecting the spectral properties. The thickness of each layer is a function of the desired component stack and the preferred reflectivity. The thicknesses and optical characteristics of the coating stack may be adjusted to achieve a broad range of specified emissivity and haze values. The desired attributes may be obtainable by adjusting the compositions and thicknesses of the coating layers. It would have been obvious to one having ordinary skill in the art at the time the invention was made to vary the thickness of the layers because it is understood by one of ordinary skill in the art that the layer thicknesses determine properties such as transmittance, emissivity, and color and because it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art.

Regarding claims 37-42, 45, 58-59 and 67-68, Hartig does not mention all the claimed properties, but considering the substantially identical glass article of Hartig, compared to the applicant's claimed article, it appears that the glass article of Hartig possess all the claimed properties.

Regarding claims 58-59 and 67-68, Hartig discloses subjecting the glass article to heat-treatment by way of tempering or bending (column 5, lines 37-40 and column 9, lines 10-24).

Regarding claims 47-48, Hartig does not specifically mention using the coated glass article as a laminated glazing or vehicle windshield, but does disclose that the article exhibits high visible light transmittance and excellent infrared energy reflecting

characteristics useful as architectural glasses (column 1, lines 9-15). It would have been obvious to one having ordinary skill in the art at the time the invention was made to use the coated glass article disclosed by Hartig as a laminated glazing or vehicle windshield because high light transmittance and high infrared reflectance as desired in vehicular windshields and laminated glass is widely used in architectural applications to provide added insulation from the outside environment.

9. Claims 60 and 69-71 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hartig as applied to claims 25-28, 31-35, 43, 46, 49-57 and 61-66 above, and further in view of USPN 5,952,084 to Anderson et al. (hereinafter referred to as Anderson) or USPN 5,168,003 to Proscia.

Regarding claims 60 and 69-71, Hartig discloses that the dielectric material may be silicon nitride (column 9, lines 10-22), but does not mention using titanium, tantalum or tin oxide. Anderson (column 10, lines 34-40) and Proscia (column 13, lines 31 through column 14, line 15) disclose that tin oxide, tantalum oxide, titanium oxide and silicon nitride are all high refractive index materials that may be used interchangeably (paragraph bridging columns 3 and 4). It would have been obvious to one having ordinary skill in the art at the time the invention was made to make any of the dielectric layers of Hartig from any suitable high refractive index material, such as titanium, tin or tantalum oxide, as disclosed by Anderson or Proscia, because it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of design choice.

Regarding claims 69 and 71, Hartig discloses that it is known in the art to convert

a five layer system into a seven layer system, because it exhibits higher durability and scratch resistance compared to a five-layer system (column 7, lines 35-46). It would have been obvious to one having ordinary skill in the art at the time the invention was made to construct a seven layer system, comprising the five layer system of Hartig with an additional silver layer and an additional nickel/chromium combination layer, because a seven layer system provides higher durability and scratch resistance compared to a five layer system.

(11) Response to Argument

35 USC 102(b) rejection of claims 25-29, 31, 34-35, 43 and 46 as being anticipated by Guiselin:

As admitted by appellant (see page 6, lines 1-19 of the Appeal Brief), Guiselin discloses that a Ni-Cr layer may be placed above and below each of the infrared reflective metal layers (3, 5 and 7) and each Ni-Cr layer placed below a dielectric oxide layer would become partially oxidized due to the deposition of each dielectric oxide layer in an oxygen atmosphere. Therefore, Guiselin disclose an article (see Figure 1) comprising the following (prior to heat treatment):

Dielectric oxide layer (8)

Ni-Cr layer (partially oxidized) (not shown)

Infrared reflective metal layer (7)

Ni-Cr layer (not shown)

Dielectric oxide layer (6)

Ni-Cr layer (partially oxidized) (not shown)

Infrared reflective metal layer (5)

Ni-Cr layer (not shown)

Dielectric oxide layer (4)

Ni-Cr layer (partially oxidized) (not shown)

Infrared reflective metal layer (3)

Ni-Cr layer (not shown)

Dielectric oxide layer (2)

Glass substrate (1)

According to appellant's logic, and as illustrated above, all of the infrared reflective metal layers (3, 5 and 7) of Guiselin, prior to heat treatment, are in contact with two-absorbent transparent dielectric coating layers wherein each dielectric coating layer comprises a sub-layer based on a partially but not totally oxidized combination of at least two metals, with the exception of the first infrared reflective metal layer (3). Although the examiner agrees with the appellant, the appellant is incorrect in asserting that Guiselin does not read on the current claims for any of the following three reasons:

Firstly, the appellant is implicitly asserting that each of the infrared reflective metal layers is necessarily a claimed metallic coating layer comprising silver or a silver alloy. The examiner respectfully disagrees. Guiselin clearly discloses that the each of the infrared reflective metal layers (3, 5 and 7) may be gold, copper, or silver (column 2, lines 40-47). Guiselin states, "Different IR reflective films can be used in the invention stack of films, or all three IR reflective films can be of the same material" (column 2, lines 40-47). Therefore, when Guiselin discloses that the first infrared reflective metal layer (3) may be a copper or gold layer, the first infrared reflective metal layer (3) would not be considered a metallic coating layer comprising silver or silver alloy. Therefore,

the first infrared reflective metal layer need not necessarily be in contact with two-absorbent transparent dielectric coating layers wherein each dielectric coating layer comprises a sub-layer based on a partially but not totally oxidized combination of at least two metals.

Secondly, the appellant does not claim that all the silver or silver alloy layers in the stack must be in contact with two-absorbent transparent dielectric coating layers wherein each dielectric coating layer comprises a sub-layer based on a partially but not totally oxidized combination of at least two metals. Rather, the appellant asserts that the stack comprises at least one metallic coating layer comprising silver or a silver alloy wherein each metallic coating layer is in contact with two-absorbent transparent dielectric coating layers wherein each dielectric coating layer comprises a sub-layer based on a partially but not totally oxidized combination of at least two metals. The examiner contends that Guiselin discloses at least one metallic coating layer (layer 7 or 5) comprising silver or a silver alloy wherein the metallic coating layer is in contact with two-absorbent transparent dielectric coating layers wherein each dielectric coating layer comprises a sub-layer based on a partially but not totally oxidized combination of at least two metals. Therefore, the first infrared reflective metal layer (3) need not necessarily be in contact with two-absorbent transparent dielectric coating layers wherein each dielectric coating layer comprises a sub-layer based on a partially but not totally oxidized combination of at least two metals.

Thirdly, the appellant has failed to show a significant difference between the claimed transparent substrate and the transparent substrate taught by Guiselin. The appellant claims that "prior to" the heat treatment, each of the dielectric coating layers

comprise a sub-layer based on a partially but not totally oxidized combination of at least two metals. The examiner asserts that regardless of the process used to create the transparent substrate (partially oxidizing the sub-layers), after the claimed heat treatment the claimed sub-layers, and the sub-layers disclosed by Guiselin, would become fully oxidized. The appellant clearly admits such on page 4, lines 4-22, of the current specification. Therefore, absent the appellant showing a significant difference between the claimed transparent substrate and the transparent substrate taught by the prior art, Guiselin reads on the current claims.

The appellant asserts that there are significant benefits from the use of partially but not totally oxidized combination of at least two metals prior to heat treatment, but the appellant has failed to provide evidence supporting this assertion. The current specification fails to provide a direct comparison between articles wherein the only difference is the claimed partially oxidized sub-layers. For example, on page 15 of the current specification, the appellant illustrates the property differences between an article comprising partially oxidized sub-layers and an article comprising metallic sub-layers, but the comparison is not compelling because the articles differ in many other ways. The property differences may very well be dependent on the different dielectric layers and/or the different layer thicknesses. The appellant has clearly failed to show a significant difference between the claimed transparent substrate and the transparent substrate taught by the prior art.

35 USC 102(b) rejection of claims 52-56 and 61-65 as being anticipated by Guiselin:

The appellant asserts that one difference between claim 25 and claim 52 is that claim 25 refers to the glass substrate and coating stack prior to heat treatment while claim 52 is sufficiently broad to encompass the coating stacks before and after the coating stack is heat treated. The appellant proceeds to argue that there is no teaching as to whether there is partial but not total oxidation of the sub-layer beneath the metal layer (3) and the dielectric oxide layer (2) and therefore, the appellant asserts, the rejection cannot be maintained. The examiner respectfully disagrees. Appellant's heat treatment argument is moot for two primary reasons.

Firstly, claim 25 does not overcome the prior art for the reasons stated above. Since claim 25 is essentially a narrower form of claim 52, broader claim 52 necessarily does not overcome the prior art for the reasons stated above. Secondly, claim 52, unlike claim 25, does not claim that each of the non-absorbent coating layers comprises a sub-layer based on a partially but not totally oxidized combination of at least two metals.

Guiselin discloses an article comprising dielectric oxide layers (6 and 4) and infrared reflective metal layers (5 and 3). As admitted by appellant (see page 6, lines 1-19 of the Appeal Brief), Guiselin discloses that a Ni-Cr layer may be placed above and below each infrared reflective metal layer and each Ni-Cr layer placed below a dielectric oxide layer would become partially oxidized. Therefore, Guiselin disclose an article (see Figure 1) comprising the following:

Dielectric oxide layer (6)

Ni-Cr layer (partially oxidized) (not shown)

Infrared reflective metal layer (5)

Ni-Cr layer (not shown)

Dielectric oxide layer (4)

Ni-Cr layer (partially oxidized) (not shown)

Infrared reflective metal layer (3)

The second, third, and fourth layers from the bottom comprise the claimed non-absorbent transparent coating layer comprising a layer of a partially but not totally oxidized combination of at least two metals, the fifth layer from the bottom is the claimed metallic coating layer, and the top two layers comprise the claimed second non-absorbent transparent coating layer comprising a layer of a partially but not totally oxidized combination of at least two metals.

35 USC 102(b) rejection of claims 25-28, 31-35, 43, 46, 49-57 and 61-66 as being anticipated by Hartig:

The appellant asserts that the paragraph bridging columns 8 and 9 of Hartig does not make clear if Hartig is referring to only how others used the term "nichrome" or if the definition applied to use of the term by Hartig. The examiner respectfully disagrees. Hartig clearly states "The term "nichrome" in like manner is used herein, in its generic sense to designate a layer which includes some combination of nickel and chromium, at least some of which is in its metallic state, although same may be oxidized" (emphasis added). Hartig, as many inventors are apt to do, defined a term used in the application. Hartig is obviously referring to the definition of "nichrome" as applied to use of the term by Hartig.

According to appellant, Hartig mysteriously decided to mention how the prior art defines "nichrome" seven paragraphs after the last mention of "nichrome" and after Hartig stopped discussing the prior art. In addition, two paragraphs before the paragraph in question (see column 8, lines 44-55), Hartig ends the paragraph with "It is a purpose of this invention to fulfill this need in the art as well as other needs which will become apparent to the skilled artisan once given the following disclosure" (emphasis added). Hartig is clearly stating that the subsequent paragraphs refer to the current invention.

According to appellant, Hartig defines how the prior art defines the term "nichrome" even though Hartig's definition is obviously not the conventional definition. The prior art does not conventionally define "nichrome" as being oxidized to any degree. "Nichrome", as defined in the Dictionary of Metallurgy, 1965 Chaucer Press, is a trade name for a group of high-nickel alloys with chromium, or with iron and chromium. An alloy is necessarily not oxidized, it is a mixture consisting of two or more metals. The examiner contends that the teaching of the paragraph bridging columns 8 and 9 is not confusing. Hartig is clearly referring to how "nichrome" is used by Hartig.

The appellant asserts that the disclosure in the paragraph bridging columns 8 and 9 of Hartig is not specific as to whether "nichrome" means partially or totally oxidized. The examiner respectfully disagrees. Hartig discloses that at least some of the nichrome layer must be in the metallic state. Hartig is obviously disclosing that the nichrome layer may, at the most, be partially oxidized. The statement is not confusing as alleged by the appellant.

The appellant asserts that because column 13, lines 52-55 of Hartig refers to a "substantially pure metallic 80/20 nichrome," Hartig only discloses the use of a metallic

nichrome as opposed to a partially oxidized nichrome. The examiner respectfully disagrees. Firstly, this disclosure is just one embodiment taught by Hartig. Secondly, Hartig clearly includes the phrase "substantially pure." The examiner contends that a partially oxidized nichrome layer is substantially pure metallic nichrome. "Substantially" is not the equivalent of "completely." The disclosure does not negate the teachings found in the paragraph bridging columns 8 and 9.

The appellant asserts that Hartig only discloses depositing the nichrome layers in an inert atmosphere (see page 11, lines 13-17 of the Appeal Brief), but later admits that Hartig discloses depositing the nichrome layers in an atmosphere comprising argon (inert) and oxygen (reactive) (see page 11, lines 18-20). As admitted by appellant, Hartig discloses that the nichrome layers may be deposited in a reactive atmosphere.

The appellant asserts that the reactive atmosphere disclosed by Hartig in column 10, lines 26-38, would not be sufficient to partially oxidize the nichrome layers. The appellant cites EP 0 657 562 as providing evidence supporting this assertion. The examiner contends that the argument is not persuasive because the teaching in column 10, lines 26-38, only refers to "certain further preferred embodiments" of the Hartig invention. The teaching in column 10, lines 26-38, is not commensurate in scope with all that is taught by Hartig. In particular, the teaching does not necessarily pertain to the to the teachings found in the paragraph bridging columns 8 and 9. Therefore, the disclosure does not negate the teachings found in the paragraph bridging columns 8 and 9.

The examiner asserts that the above argument is moot, because the appellant has failed to show a significant difference between the claimed transparent substrate and the transparent substrate taught by Hartig. The appellant claims that "prior to" the heat

treatment, each of the dielectric coating layers comprise a sub-layer based on a partially but not totally oxidized combination of at least two metals. The examiner asserts that regardless of the process used to create the transparent substrate (partially oxidizing the sub-layers), after the claimed heat treatment the claimed sub-layers, and the sub-layers disclosed by Hartig, would become fully oxidized. The appellant clearly admits such on page 4, lines 4-22, of the current specification. Therefore, absent the appellant showing a significant difference between the claimed transparent substrate and the transparent substrate taught by the prior art, Hartig reads on the current claims.

The appellant asserts that there are significant benefits from the use of partially but not totally oxidized combination of at least two metals prior to heat treatment, but the appellant has failed to provide evidence supporting this assertion. The current specification fails to provide a direct comparison between articles wherein the only difference is the claimed partially oxidized sub-layers. For example, on page 15 of the current specification, the appellant illustrates the property differences between an article comprising partially oxidized sub-layers and an article comprising metallic sub-layers, but the comparison is not compelling because the articles differ in many other ways. The property differences may very well be dependent on the different dielectric layers and/or the different layer thicknesses. The appellant has clearly failed to show a significant difference between the claimed transparent substrate and the transparent substrate taught by the prior art.

35 USC 103(a) rejection of claims 36-42, 44-45 and 47-48 as being unpatentable over Guiselin:

Appellant's claims 36-42, 44-45 and 47-48 stand or fall with the 35 USC 102(b) rejection of claim 25 as being anticipated by Guiselin.

35 USC 103(a) rejection of claim 30 as being unpatentable over Guiselin in view of Jenkinson:

Appellant's claim 30 stands or falls with the 35 USC 102(b) rejection of claim 25 as being anticipated by Guiselin.

35 USC 103(a) rejection of claims 30 and 32-33 as being unpatentable over Guiselin in view of Anderson or Proscia:

Appellant's claims 30 and 32-33 stand or fall with the 35 USC 102(b) rejection of claim 25 as being anticipated by Guiselin.

35 USC 103(a) rejection of claims 60 and 69-71 as being unpatentable over Guiselin in view of Anderson or Proscia:

Appellant's claims 60 and 69-71 stand or fall with the 35 USC 102(b) rejection of claim 52 as being anticipated by Guiselin.

35 USC 103(a) rejection of claims 36-42, 44-45, 47-48, 58-59 and 67-68 as being unpatentable over Hartig:

Appellant's claim 36-42, 44-45, 47-48, 58-59 and 67-68 stand or fall with the 35 USC 102(b) rejection of claim 25 as being anticipated by Hartig.

35 USC 103(a) rejection of claims 60 and 69-71 as being unpatentable over Hartig in view of Anderson or Proscia:

Appellant's claims 60 and 69-71 stand or fall with the 35 USC 102(b) rejection of claim 25 as being anticipated by Hartig.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

GTR. 8/19/04
ANDREW T. PIZIALI
PATENT EXAMINER

atp
August 19, 2004

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